

WHAT IS CLAIMED IS:

1. A system for illuminating a target area with a desired illumination pattern, comprising:
 - means for producing light to illuminate said target area;
 - means for attenuating a portion of the produced light;
5. means for positioning said means for attenuating light in a registration position with respect to said means for producing light so that the attenuated light is blocked from a portion of said target area and the unblocked light illuminates said target area with said desired illumination pattern.
2. The system of claim 1, wherein said means for attenuating a portion of the produced light comprises at least one substantially L-shaped arm.
3. The system of claim 1, wherein said means for attenuating a portion of the produced light comprises a plurality of arms evenly spaced from one another.
4. The system of claim 1, further comprising means for focusing light emitted by said means for producing light onto said target area.
5. The system of claim 4, wherein said means for attenuating a portion of the produced light is mounted in a registration position on said means for focusing light.
6. The system of claim 1, wherein said desired illumination pattern excludes a lower portion of said target area.
7. The system of claim 1, further comprising another light source for illuminating another portion of said target area.
8. The system of claim 7, wherein there is substantially no overlap in light emitted from each of said light sources.

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9. A system for illuminating a target area with a desired illumination pattern, comprising:

a light source for producing light to illuminate said target area;

a light attenuator for blocking a portion of the produced light;

5 a guide for positioning said light attenuator in a registration position with respect to said light source so that a portion of the produced light is blocked from said target area and the unblocked light illuminates said target area with said desired illumination pattern.

10. A system for illuminating a target area with a desired illumination pattern, comprising a light attenuator positioned in a registration position with respect to a light source so that a portion of the light therefrom is blocked from said target area and the unblocked light illuminates said target area with said desired illumination pattern.

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11. A system for illuminating a target area on a data cartridge with a desired illumination pattern, comprising:

a cartridge-engaging assembly positionable adjacent said data cartridge;

5 a light source mounted to said cartridge-engaging assembly; and

a light attenuator mounted to said cartridge-engaging assembly for blocking a portion of light emitted by said light source so that the unblocked light illuminates said target area with said desired illumination pattern.

12. The system of claim 11, wherein said light attenuator has at least one light-attenuating arm.

13. The system of claim 12, wherein said at least one light-attenuating arm is substantially L-shaped.

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14. The system of claim 11, further comprising registration means for positioning said light attenuator in a registration position with respect to said light source.

15. The system of claim 11, further comprising a lens to focus said light emitted by said light source onto said target area.

16. The system of claim 15, wherein said light attenuator is mounted in a registration position to said lens.

17. The system of claim 11, wherein said light source is at least one light-emitting diode.

18. A method for illuminating a target area on a data cartridge with a desired illumination pattern, comprising:

positioning a cartridge-engaging assembly adjacent to said data cartridge;

5 emitting light from at least one light source on said cartridge-engaging assembly; and

attenuating a portion of said emitted light so that the unblocked light illuminates said target area with said desired illumination pattern.

19. The method of claim 18, wherein emitting light is from both a first light source and a second light source on said cartridge-engaging assembly, and only a portion of said emitted light from said first light source is attenuated.

20. The method of claim 19, further comprising attenuating said portion of said emitted light so that there is substantially no overlap between the light emitted by said first light source and the light emitted by said second light source.

21. The method of claim 18, wherein attenuating said portion of said emitted light reduces the formation of a light tail on said data cartridge.

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22. The method of claim 18, further comprising aligning said light-attenuating means with said at least one light source.

23. The method of claim 22, further comprising providing registration means for aligning said light-attenuating means with said at least one light source.

24. The method of claim 18, further comprising attenuating about one-half of said emitted light.

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